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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,470	04/21/2004	Tomotoshi Kanatsu	00862.023668.	5344

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EXAMINER	
LOVEL, KIMBERLY M	

ART UNIT	PAPER NUMBER
2167	

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/828,470	KANATSU, TOMOTOSHI	
	Examiner	Art Unit	
	Kimberly Lovel	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/20/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-18 are rejected.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 20 May 2005 was filed after the mailing date of the application on 21 April 2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

MPEP 2106 IV.B.2.(b)

A claim that requires one or more acts to be performed defines a process. However, not all processes are statutory under 35 U.S.C. 101. Schrader, 22 F.3d at 296, 30 USPQ2d at 1460. To be statutory, a claimed computer-related process must

either: (A) result in a physical transformation outside the computer for which a practical application is either disclosed in the specification or would have been known to a skilled artisan, or (B) be limited to a practical application.

Claim 1 recites an image processing method for search for an, original data file corresponding to an input image, comprising the steps of: (a) acquiring first search information associated with the input image on the basis of information input by a user; (b) acquiring feature data contained in the input image as second search information; and (c) searching for an original data file corresponding to the input image by using the first and second search information.

In the above limitation, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result. For it to be a tangible result, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea. The invention as recited in the claim just merely searches for a data file. The method fails to produce an end result that is either stored or displayed. Therefore it is unclear as to what kind of tangible output is obtained by these limitations. An example of a tangible result would be displaying or returning a result after searching. **Claims 2-15**, which are dependent on claim 1 fail to overcome the rejection and therefore are rejected on the same grounds as claim 1.

Claim 16 recites an image processing system which searches for an original data file corresponding to an input image, comprising: means for acquiring first search information associated with the input image on the basis of information input by a user;

means for acquiring feature data contained in the input image as second search information; and means for searching for an original data file corresponding to the input image by using the first and second search information.

In the above limitation, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result. For it to be a tangible result, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea. The invention as recited in the claim just merely processes the search query. The method fails to produce an end result that is either stored or displayed. Therefore it is unclear as to what kind of tangible output is obtained by these limitations. An example of a tangible result would be displaying or returning a result after processing the query.

To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 7, 9-13 and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No 5,911,139 to Jain et al (hereafter Jain et al).

Referring to claim 1, Jain et al discloses an image processing method for search for an, original data file corresponding to an input image, comprising the steps of:

(a) acquiring first search information [alpha-numeric query] associated with the input image on the basis of information input by a user (see column 9, lines 11-15);

(b) acquiring feature data [feature vector] contained in the input image as second search information (see column 9, lines 45-48); and

(c) searching for an original data file corresponding to the input image by using the first [alpha-numeric query] and second [feature vector] search information (see column 9, lines 52-67).

Referring to claim 2, Jain et al discloses the method according to claim 1, further comprising the step of: (d) registering the first search information as an index [index value] for searching for the original data file in an index file (see column 7, lines 27-32).

Referring to claim 3, Jain et al discloses the method according to claim 1, wherein the first search information comprises a keyword [keywords] for search (see Fig 3, item 201 and column 9, lines 11-15).

Referring to claim 4, Jain et al discloses the method according to claim 1, wherein the first search information comprises a data size [file size] of the original data file (see Fig 3, item 201 and column 9, lines 11-15).

Referring to claim 5, Jain et al discloses the method according to claim 1, wherein the first search information comprises date information [File Date] of the original data file (see Fig 3, item 201 and column 9, lines 11-15).

Referring to claim 7, Jain et al discloses the method according to claim 1, wherein the second search information comprises a character code of a character recognition [face recognition] result which is obtained by performing a character recognition process with respect to a character region in the input image (see column 25, lines 31-41).

Referring to claim 9, Jain et al discloses the method according to claim 1, further comprising the step of: (e) converting the input image into vector data [feature vector] when no original data file can be searched in the step (c) [a new image is being inserted and therefore there is no original data file to be searched] (see column 9, lines 40-52).

Referring to claim 10, Jain et al discloses the method according to claim 9, further comprising the step of: (f) converting the input image, which has been converted into the vector data, into data in a format which can be handled by application software (see column 31, lines 12-14).

Referring to claim 11, Jain et al discloses the method according to claim 9, further comprising the step of: (g) storing the input image which has been converted into the vector data [feature vector] in a database [database 132] (see column 9, lines 48-51).

Referring to claim 12, Jain et al discloses the method according to claim 10,. further comprising the step of: (h) registering the first search information, in an index file, as an index [index value] for searching for an image represented by vector data stored in a database in the step (c) (see column 7, lines 27-32).

Referring to claim 13, Jain et al discloses the method according to claim 1, further comprising the step of: (i) outputting the searched original data, wherein pointer information is added to the output original data file (see column 14, lines 7-19).

Referring to claim 15, Jain et al discloses the method according to claim 1, wherein in the step (c), the original data file is searched for by using at least one of keyword search [keywords], full-text search, and layout search (see Fig 3, item 201 and column 9, lines 11-15).

Referring to claim 16, Jain et al discloses an image processing system which searches for an original data file corresponding to an input image, comprising:

means [alpha-numeric query input module 106] for acquiring first search information [alpha-numeric query] associated with the input image on the basis of information input by a user (see column 9, lines 11-15);

means [Query Canvas module 108 or Image Browsing Module 110] for acquiring feature data [feature vector] contained in the input image as second search information (see column 9, lines 45-48); and

means [VIR Engine 120] for searching for an original data file corresponding to the input image by using the first [alpha-numeric query] and second [feature vector] search information (see column 9, lines 52-67).

Referring to claim 15, Jain et al discloses a computer executable program stored on a computer-readable medium for search for an original data file corresponding to an input image, comprising:

code [alpha-numeric query input module 106] for acquiring first search information [alpha-numeric query] associated with the input image on the basis of information input by a user (see column 9, lines 11-15);

code [Query Canvas module 108 or Image Browsing Module 110] for acquiring feature data [feature vector] contained in the input image as second search information (see column 9, lines 45-48); and

code [VIR Engine 120 comprises modules] for searching for an original data file corresponding to the input image by using the first [alpha-numeric query] and second [feature vector] search information (see column 9, lines 40-41 and 52-67).

Referring to claim 18, Jain et al discloses a computer-readable medium having a computer executable program stored thereon for search for an original data file corresponding to an input image, the program comprising:

code [alpha-numeric query input module 106] for acquiring first search information [alpha-numeric query] associated with the input image on the basis of information input by a user (see column 9, lines 11-15);

code [Query Canvas module 108 or Image Browsing Module 110] for acquiring feature data [feature vector] contained in the input image as second search information (see column 9, lines 45-48); and

code [VIR Engine 120 comprises modules] for searching for an original data file corresponding to the input image by using the first [alpha-numeric query] and second [feature vector] search information (see column 9, lines 40-41 and 52-67).

7. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 5,911,139 to Jain et al as applied to claim 13 above, and further in view of US Patent No 7,010,144 to Davis et al (hereafter Davis et al).

Referring to claim 6, Jain et al discloses second search information. However, Jain et al fails to explicitly disclose the further limitation wherein the second search information comprises information associated with a storage location of the original data file which is extracted on the basis of pointer information in the input image. Davis et al also disclose second search information (see column 13, lines 5-14), including the further limitation wherein the second search information comprises information associated with a storage location [address] of the original data file which is extracted on the basis of pointer information in the input image (see column 9, lines 1-16) in order to increase the efficiency and accuracy of locating the original data file.

It would have been obvious to one of ordinary skill in the art at the time if the invention to use the feature the second information being associated with an address location as disclosed by Davis et al as the second search information of Jain et al. One would have been motivated to do so in order to increase the efficiency and accuracy of locating the original data file.

Referring to claim 14, Jain et al disclose pointer information. However, Jain et al fail to explicitly disclose the further limitation wherein the pointer information is added as a digital watermark to the original data file. Davis et al also disclose pointer information (see column 14, lines 11-23), including the further limitation wherein the pointer information is added as a digital watermark to the original data file (see column 1, lines 29-35) in order to embed auxiliary data, which may include one or more references, a machine instruction or set of instructions, and other data items about the image into the image.

It would have been obvious to one of ordinary skill in the art at the time if the invention to use the feature of a digital watermark as disclosed by Davis et al as the pointer information of Jain et al. One would have been motivated to do so in order to embed auxiliary data, which may include one or more references, a machine instruction or set of instructions, and other data items about the image into the image.

8. **Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 5,911,139 to Jain et al as applied to claim 13 above, and further in view of US Patent No 6,941,323 to Galperin (hereafter Galperin).**

Referring to claim 8, Jain et al discloses second search information. However, Jain et al fails to explicitly disclose the further limitation wherein the second search information comprises feature data of each block obtained by region segmentation of the input image. Galperin discloses image comparison and retrieval, including the further limitation wherein the second search information comprises feature data of each

block obtained by region segmentation of the input image (see column 14, lines 8-23) in order to obtain feature data characterizing individual portions of the image.

It would have been obvious to one of ordinary skill in the art at the time if the invention to use the feature of obtaining feature data by using segmentation as disclosed by Davis et al as the way in which to retrieve the feature data of Jain et al. One would have been motivated to do so in order to obtain feature data characterizing individual portions of the image.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Lovel whose telephone number is (571) 272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 2167

30 September 2006
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2 October 2006